

REMARKS

Applicant has studied the Office Action dated November 17, 2009, and makes the following remarks. Claims 1-37 were previously canceled without prejudice. Claims 38-45 are pending. No claims have been amended. No new matter has been added. It is submitted that the application is in condition for allowance. Reconsideration is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 38-45 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0004924 to Kim et al. (hereinafter "Kim") in view of U.S. Patent Application Publication No. 2004/0190551 to Matsumoto et al. (hereinafter "Matsumoto") in view of and U.S. Patent No. 5,507,035 to Bantz et al. (hereinafter "Bantz"). This rejection is respectfully traversed.

Independent claims 38 and 42 recite that each of the at least two second data blocks and dummy bits are allocated to the plurality of antennas based on the received channel status information, wherein each of the at least two second data blocks is allocated to an antenna having good channel status and only the dummy bits are allocated to an antenna having bad channel status.

As admitted by the Examiner in the Final Office Action, Kim fails to teach all of the limitations of claims 38 and 42, respectively, but asserts that the combination of Matsumoto and Bantz cure the deficiencies of Kim. The Applicant respectfully disagrees.

On page 3, lines 9-11 of the Final Office Action, the Examiner asserts that Matsumoto discloses "only the dummy bits are assigned for transmission to antenna that is not used for transmission of data" citing page 5, sections 0046, 0047 and 0048 of Matsumoto. The Applicant disagrees with the Examiner's assertion.

Sections 0046 to 0048 of Matsumoto disclose that "dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned." However, Applicant asserts that this disclosure is not analogous to an "antenna that is not used for transmission of data" as stated by the Examiner.

Applicant submits that Matsumoto discloses a communication system and method for performing data communication of discreet multi-tone modem type between a plurality of communication units through a telephone line (see page 1, section 0001 of Matsumoto). Applicant further submits that no antenna is used in a communication system using a telephone line, i.e. a wired line, such as in an ADSL, HDSL, or SDSL communication system. Accordingly, there is no possibility in Matsumoto that the dummy bits are assigned for transmission to an antenna that is not used for transmitting data. Sections 0046 to 0048 of Matsumoto merely disclose that dummy bits are allocated to a transmission time interval to which the data to be transmitted is not allocated in a time division multiplexing (TDM) mode.

In this sense, one having ordinary skill in the art at the time the invention was made would not be motivated to combine the teachings of Matsumoto with Kim to allocate dummy bits for transmission to an antenna that is not used for transmission of data. Hence, the feature of allocating dummy bits to an antenna having bad channel status, as recited in claims 38 and 42 is not taught by the combination of Kim and Matsumoto.

Furthermore, it is respectfully asserted that Bantz fails to cure the deficiencies of Kim and Matsumoto. Column 2, lines 29-45 and column 3, lines 10-22 of Bantz relate to “selection antenna diversity” and “switching antenna diversity.” However, Bantz fails to disclose “allocating each of the at least two second data blocks and dummy bits to the plurality of antennas based on the received channel status information, wherein each of the at least two second data blocks is allocated to an antenna having good channel status and only the dummy bits are allocated to an antenna having bad channel status” as recited in claims 38 and 42. In contrast, Bantz merely discloses in column 3, lines 10-22 that, by “selection antenna diversity,” a station with multiple antennas receives multiple copies of every packet and can choose a good copy from the bad copies and, by “switching antenna diversity,” a station receives only one copy of every packet from its selected antenna.

In view of the forgoing, it is respectfully submitted that independent claims 38 and 42, and the claims respectively dependent thereon, are allowable over the combination of Kim, Matsumoto and Bantz.

CONCLUSION

In light of the above remarks, Applicant submits that the present Amendment places all claims of the present application in condition for allowance. Reconsideration of the application, as amended, is requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

Lee, Hong, Degerman, Kang & Waimey

Date: December 31, 2009

By: /Lew Edward V. Macapagal/
Lew Edward V. Macapagal
Registration No. 55,416
Attorney for Applicant

Customer No. 035884